

Description of the hemipenis of *Montaspis gilvomaculata* Bourquin, 1991 (Serpentes, Colubridae)

by

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ABSTRACT

The hemipenes of *Montaspis gilvomaculata* reach the level of the eighth subcaudal, are symmetrically bi-lobed, and have large spines borne on mounds (contrasulcal aspects of the lobes) or on strongly frilled rows (all other areas). The sulcus spermaticus bifurcates at the level of the fourth subcaudal and extends to the end of each lobe.

INTRODUCTION

Montaspis gilvomaculata was described by Bourquin in 1991 on the basis of a single preserved female now in the Transvaal Museum, Pretoria (TM 68088); supplementary notes were based on a live captive male in the possession of Mr Gavin Carpenter, Pietermaritzburg. Few specimens have been found subsequently. At the time of description no hemipenis was available for examination. The death of the male living at the time that the description was published now allows the hemipenis to be illustrated and described.

MATERIAL AND METHODS

An adult male measuring 432.5 (337.0 + 95.5) mm, housed in the author's collection (AJL 3595), was found by an unknown collector near the top of Sani Pass, KwaZulu-Natal, South Africa (locus 2929CB; 29°35'06"S, 29°17'16"E, altitude *ca.* 2865 m), in October 1987.

The snake was kept in captivity until its death in June 1992, when it was donated to the author by Mr Carpenter.

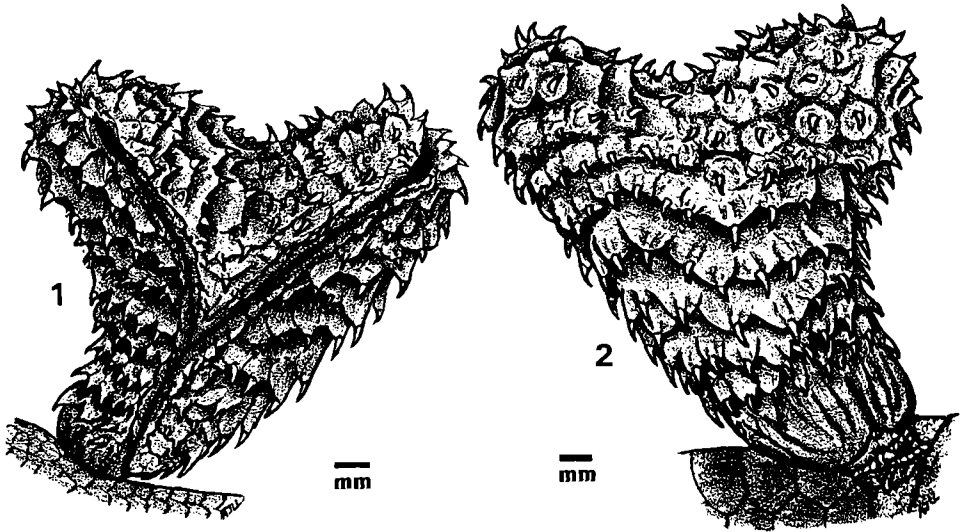
The hemipenes were everted by injecting formalin into the tail before fixing the snake, and tying off at their bases. They were examined and photographed both unstained and after staining with dilute india ink to enhance surface details.

Illustrations were prepared from enlarged photographs and from microscopic study. The description is of the right hemipenis.

DESCRIPTION

The hemipenis (Figs 1 & 2) extends to the level of the distal margin of the eighth subcaudal, bifurcating at the level of the distal margin of the seventh subcaudal. The length of the lobes, as measured from the centre of the interlobular angle to the ends

of the lobes, is about half the length of the hemipenis measured from its base to the middle of the interlobular angle.



Figs 1–2 *Montaspis gilvamaculata* Bourquin, 1991, right hemipenis. 1. Sulcal aspect (AJL 3595; near top of Sani Pass, KwaZulu-Natal). 2. Contrasulcal aspect (other data as in Fig. 1).

The sulcus spermaticus extends from the base of the organ to the level of the fourth subcaudal, where it bifurcates; each branch extends to the tip of its lobe.

Sharp, curved, subequal spines arranged in subequal, roughly transverse rows cover almost the whole organ, and are absent only from the very base. Each lobe bears about 3 rows of spines. On the sulcal aspect these are borne on frilled rows arranged more or less longitudinally (Fig. 1). On the contrasulcal aspect, the spines are arranged in definite transverse series, but arise from individual polyhedral mounds set closely together (Fig. 2). From the level of bifurcation towards the base, the spines arise from the margins of about 5 more or less continuous frilled rows on both aspects. The spines are largest about halfway up the body of the hemipenis, and diminish slightly in size towards the base. The frilled rows are broadest contrasulcally at the third and fourth rows, counted from the base of the organ.

SYSTEMATIC RELATIONSHIPS

Montaspis is an opisthoglyphous colubrid. The skeletal characters so far examined (the maxilla, and anterior and posterior vertebrae) have shed little light on the species' systematic position and relationships, which initially appeared to be possibly allied to *Amplorhinus* Smith, 1847. However, the hemipenis of *Montaspis* does not appear to show any close affinities with those of other southern African colubrids. At present it would appear that *Montaspis* may be more closely allied to the Malagasy rather than the South African snakes, but the matter requires much more investigation before it can be satisfactorily resolved (Broadley, in discussion).

ACKNOWLEDGEMENTS

Thanks are due to Mr. Gavin Carpenter for donating the specimen on which this hemipenial description is based, and to Mr Wulf Haacke, Transvaal Museum, for constructive referee's comments. I am especially grateful to Dr Donald Broadley, Natural History Museum, Zimbabwe, for valuable comments on problems relating to the systematic relationships of this enigmatic reptile.

REFERENCE

- BOURQUIN, O. 1991. A new genus and species of snake from the Natal Drakensberg, South Africa. *Annals of the Transvaal Museum* **35** (12): 199–203.

Date received: 9 December 1996